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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,059	12/23/2004	Yoshinori Wariishi	TOW-082US	7003

959 7590 05/13/2008  
LAHIVE & COCKFIELD, LLP  
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BOSTON, MA 02109-2127

EXAMINER
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PARSONS, THOMAS H

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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05/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,059	<b>Applicant(s)</b> WARIISHI ET AL.	
	<b>Examiner</b> THOMAS H. PARSONS	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 is/are rejected.
- 7) ☒ Claim(s) 3-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

Page 13, line 19, suggest changing “26b” to --26a--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP4-206162.

**Claim 1:** JP4-206162 in Figure 1 discloses a solid polymer cell assembly comprising a cell assembly formed by juxtaposing a plurality of unit cells such that electrode surfaces of the unit cells are aligned in parallel with each other, the unit cell each having an assembly including an anode, a cathode, and a solid polymer electrolyte membrane interposed between the anode and the cathode, wherein the unit cells includes an upstream unit cell provided on an upstream side in a flow direction of a reactant gas including at least one of an oxygen-containing gas and a fuel gas, and a downstream unit cell provided on a downstream side in the flow direction; and at least part of a reactant gas flow passage for the reactant gas extends serially from a passage

formed on an upper side of the assembly of the upstream unit cell to a passage formed on a lower side of the assembly of the downstream unit cell.

**Claim 2:** JP4-206162 in Figure 1 discloses that reactant gas flow passage includes a fuel gas flow passage and an oxygen-containing gas flow passage, and the oxygen-containing gas and the fuel gas flows in a counterflow manner in the oxygen-containing gas flow passage and the fuel gas flow passage along both surfaces of the assemblies of the unit cells.

*Allowable Subject Matter*

4. Claims 3-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Reasons for Indicating Allowable Subject Matter*

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art references of record failed to teach or suggest specific structural features of the claimed solid polymer cell assembly, in particular,

an upstream unit cell provided on the upstream side in a flow direction of the oxygen-containing gas, and a downstream unit cell provided on the downstream side in the flow direction of the oxygen-containing gas; and a coolant flow passage is provided such that a coolant flows serially from said upstream unit cell provided on the upstream side in the flow direction of the oxygen-containing gas to said downstream unit cell provided on the downstream side in the flow

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direction of the oxygen-containing gas so that temperature of said downstream unit cell provided on the downstream side in the flow direction of the oxygen-containing gas is kept higher than temperature of said upstream unit cell provided on the upstream side in the flow direction of the oxygen-containing gas (as set forth in claim 3 and claims 4-7, which are dependent thereon), and,

a connection passage member is provided between juxtaposed unit cells; and a reactant gas connection passage and a coolant connection passage are formed in the connection passage member for serially supplying the reactant gas and the coolant (as set forth in claim 8).

### *Examiner Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS H. PARSONS whose telephone number is (571)272-1290. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICK RYAN/  
Supervisory Patent Examiner, Art Unit 1795

Thomas H Parsons  
Examiner  
Art Unit 1795